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Bilge Cleaning

Potential Environmental Impacts:

Bilge water can commonly contain oil, fuel, antifreeze, and other contaminants. Even small amounts of such materials introduced into the marina environment can cause environmental problems, especially if they persist. Although some oil that spills into the water evaporates, petroleum hydrocarbons can remain suspended in the water column, concentrate on the surface, or settle to the bottom. Oil sheens can block necessary oxygen and light from moving through the surface of the water. According to the EPA, the hydrocarbons in oil harm juvenile fish, upset fish reproduction, and interfere with the growth and reproduction of bottom-dwelling organisms. Additionally, the risk of fines and the possibility of contaminated sediments may make future dredging operations more difficult.

Legal Requirements:

Do not discharge oily bilge water	<input type="checkbox"/> Oily bilge water must not be allowed to enter the waters of the state [DHEC R.61-79.262.11]. <input type="checkbox"/> If oily bilge water cannot be sufficiently cleaned for legal discharge, make arrangements with a waste hauler to properly dispose of the bilge water.
Report oily bilge discharge as spill	<input type="checkbox"/> Any spill or release of petroleum that results in a sheen on the waters of the state or threatens the waters of the state to include groundwater must be reported immediately to the: <ol style="list-style-type: none"> 1. SCDHEC Emergency Response Section at 1-888-481-0125 and 2. National Response Center at 1-800-424-8802 [Section 311 of the Clean Water Act; 33 USC 1321].
Dispersants	<input type="checkbox"/> The use of dispersants, such as dishwashing soaps or detergents, on oil or fuel spills or sheen of any size is prohibited in most circumstances [40 CFR 110.4; DHEC R.61-79.262.11]. Dispersants may only be used with permission from federal or state authorities, and only in rare instances.

Best Management Practices:

Before pumping	<input type="checkbox"/> Before pumping out a bilge, visually inspect the bilge water to determine whether there is a visible sheen of oil. <input type="checkbox"/> Use oil absorbent materials to remove oil before pumping a bilge. <input type="checkbox"/> Use an oil/water separator to remove oil from bilge water. <input type="checkbox"/> Don't use soaps and detergents to clean up oily bilge water.
Require bilge pad use	<input type="checkbox"/> Require the use of bilge pads to help keep bilge water discharge clean. Have bilge pads on hand for sale to marina patrons, or direct your tenants to a marine supply store in your area.
Pumping to sanitary sewer	<input type="checkbox"/> Some pump-out stations may allow bilge water to be pumped out to the sanitary sewer after the oil has been physically removed. Prior approval of the local sanitary sewer authority is required. Large municipal sewer systems often have sophisticated requirements.

Train employees	<input type="checkbox"/> Train employees and contractors on bilge cleaning best management practices.
Educate customers	<input type="checkbox"/> Educate customers to keep their engines properly maintained, to continually check and fix all leaks, and to keep an absorbent pad or pillow in the bilge to absorb small drips and spills.

Relevant Sections and Appendices:

- ⇒ Appendix C for used oil management.
- ⇒ Appendix E for state and federal spill reporting requirements.
- ⇒ Appendix F and Stormwater Runoff Management Practices section for stormwater discharge information.

Pressure Washing

Potential Environmental Impacts:

When the marine organisms that accumulate on the bottom of a vessel are removed, fragments of bottom paint and hull materials are often chipped off in the process. In a concentrated form, these untreated particles can have localized water quality impacts. Pressure washing in particular removes antifouling paint from boat bottoms, which can get washed into the marina basin. Sediments contaminated with copper or other toxic ingredients in antifouling paints can result in future problems and expenses for the marina operator when faced with dredge material disposal.

Legal Requirements:

Paint chip and sludge disposal	<input type="checkbox"/> After pressure washing, the paint chips and sludge in holding tanks or treatment units is a special waste that can only be disposed of at an approved facility [DHEC R. 61-107.258].
NPDES wash water permit	<input type="checkbox"/> For additional information, contact your local SCDHEC office.

Best Management Practices:

Use low pressure water	<input type="checkbox"/> Encourage boat washing with low-pressure water only. Where practical, use a regular garden-type hose and a soft cloth.
Don't use chemicals	<input type="checkbox"/> Do not use soaps, solvents, and other chemicals. This allows more options for reuse or discharge of treated wash water and protects water quality.
Collect and treat wash water	<input type="checkbox"/> Collect and treat wash water. The following are options for collection and treatment: <ol style="list-style-type: none"> 1. Wastewater from the washing operation can be collected and reused through a closed loop pressure wash system, or can be used after treatment to irrigate landscaped portions of the marina. 2. Collect all of the wash water, treat it, and discharge to sanitary sewer or store for hauling to a sewage treatment plant. Discharge to the sanitary sewer or on-site septic system requires approval. 3. Pressure wash water can also be directed to a holding or settling tank for treatment. If the wastewater does not contain chemical additives, it may be diverted into wet pond detention basins, vegetated buffers, or swales. 4. If none of the above-mentioned practices is feasible and the only apparent option is to discharge pressure washing wastewater to a surface water or storm drain, wash water should be treated prior to discharge. Options for treatment include filtering the wash water through catch basin inserts that will separate out debris, paint chips, and sediment. The use of filter fabric, oil/water separators, or sand filters should also be considered.

<p><u>Alternatives:</u></p> <p>Wash over permeable surface with filter fabric</p> <p>Wash away from waterbody</p>	<p><input type="checkbox"/> If collecting and treating wash water is not feasible:</p> <ol style="list-style-type: none"> 1. Wash boats on a level permeable surface (lawn, crushed stone, or sand) so that the wash water can infiltrate into the ground, if there is no drinking water well on the property. 2. Place filter fabric over the permeable surface to collect solids and sediments. <p>A hazardous waste determination should be conducted on collected pressure wash wastewater to establish whether or not disposal of the collected material is subject to hazardous waste regulations [40 CFR 262.11].</p> <ol style="list-style-type: none"> 3. To ensure that the wash water has enough time to settle into the ground, pressure wash boats as far away as possible from the water, preferably over a grassed or otherwise vegetated area. Add a row of hay bales between the water's edge and the pressure washing operation. 4. If it is not possible to wash boats over a permeable surface, pump the wash water to a permeable surface for infiltration.
If well nearby	<p><input type="checkbox"/> If there is a well nearby, pressure wash boats on an impervious surface as far as possible from the well, and treat the wash water to collect solids and sediments before discharge, preferably to the sanitary sewer.</p>
Contain chemical discharges	<p><input type="checkbox"/> If chemical additives, such as solvents or degreasers, are used, the pressure washing must be conducted in self-contained systems that prevent any discharge to storm drains.</p>
Minimize water use	<p><input type="checkbox"/> Minimize the amount of water used when boats are pressure washed out of the water. For example, wash the hull above the waterline by hand.</p>
Prohibit in-water bottom cleaning	<p><input type="checkbox"/> Prohibit in-water bottom cleaning or hull scraping or any process that occurs underwater which removes antifouling paint from the boat hull. This practice makes it impossible to treat what is cleaned from the boat bottom.</p>

Relevant Sections and Appendices:

- ⇒ Appendix B for hazardous waste management information.
- ⇒ Appendix F and Stormwater Runoff Management Practices section for stormwater discharge information.
- ⇒ Hazardous Waste section.

Winterizing Vessels

Potential Environmental Impacts:

The activity of preparing a vessel for winter storage may contribute to non-point source pollution through the use of heavy equipment (fork lifts, cranes and travel lifts) as well as through various storage procedures (use of antifreeze and battery storage).

Legal Requirements:

See other sections	<input type="checkbox"/> Please see sections referenced below for legal requirements for specific winterizing activities.
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Best Management Practices:

Antifreeze	<input type="checkbox"/> Use propylene glycol antifreeze (usually pink), which is less toxic than ethylene glycol (usually green), to winterize all systems except “closed” or freshwater cooling systems. <input type="checkbox"/> Re-use or recycle antifreeze. Store spent antifreeze in a container clearly marked “Spent Antifreeze Only.”
Bilges	<input type="checkbox"/> Inspect and clean bilges prior to extended vessel storage. Clean all water, oil, or foreign materials from the bilge using absorbent material.
Do not use toxic cleaners	<input type="checkbox"/> Avoid the use of heavy-duty detergents containing ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates, acids, or lye.
Use dry rack storage	<input type="checkbox"/> Encourage use of state-of-the-art dry rack storage facilities. They minimize the need for more intensive forms of hull maintenance. <input type="checkbox"/> Prior to lowering a vertical lift or marine railway, clean up the device to prevent contamination of the receiving waters from oil or any hazardous substance.
Gasoline	<input type="checkbox"/> To reduce waste from contaminated gasoline in fuel tanks, store boat motors according to manufacturers’ guidelines. <input type="checkbox"/> Top off the tanks if the boat is stored in water, or empty and purge the tank if stored on land. Topping off tanks in the summer can result in spills due to fuel expansion. Top off in the summer just when you are taking her out.

Relevant Sections and Appendices:

- ⇒ Appendix C for used oil and antifreeze management.
- ⇒ Antifreeze section.
- ⇒ Bilge Cleaning section.
- ⇒ Pressure Washing section.
- ⇒ Decommissioning Engines section.
- ⇒ Oil section.
- ⇒ Battery Replacement section.

Boat Disposal

Potential Environmental Impacts:

Sunken or abandoned vessels can pose environmental and safety risks by leaking oil and fuel in a concentrated area. They can also cause navigational and safety hazards. If boats are properly disposed of before they become unseaworthy, the chances that the vessel will become an environmental risk are reduced.

Legal Requirements:

Boat Disposal	<input type="checkbox"/> There are no legal requirements specifically for boat disposal.
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Best Management Practices:

Boat fuel	<input type="checkbox"/> Empty the boat's fuel tanks and reuse or dispose of used gasoline as hazardous waste.
Remove and recycle	<input type="checkbox"/> Remove and recycle the following boat parts and fluid: <ol style="list-style-type: none">1. Used oil2. Used antifreeze3. Boat engine (recycle as scrap metal)4. Any metal with reuse value, such as lead, zinc, aluminum5. Refrigerants
Mercury parts	<input type="checkbox"/> Remove all mercury-containing devices (i.e., some electronic equipment, bilge pump switches, old ship's barometers) and handle as hazardous waste. If removed by the boater, the mercury containing devices can be managed as household hazardous waste.
Hull pieces	<input type="checkbox"/> Reduce the size of the hull into smaller pieces as directed by the solid waste facility. The smaller the pieces, the easier it is for the facility to take.

Relevant Sections and Appendices:

- ⇒ Appendix B for hazardous waste management information.
- ⇒ Hazardous Waste section.

Tab 4: Fueling _____ 47

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Fueling Station Operation

Potential Environmental Impacts:

The small spills that occur during boat fueling can accumulate and become a much larger problem. According to the EPA, complex hydrocarbon compounds in oil and gasoline are toxic to marine life, upset fish reproduction, and interfere with growth and reproduction of bottom dwelling organisms. Oil and gas that are ingested by one animal can be passed to the next animal that eats it. In a marina, petroleum will also deteriorate the white Styrofoam in floats and docks, and discolor boat hulls, woodwork, and paint. Gasoline spills are also a safety problem because of the product's flammability. A single pint of petroleum product released into the water can cover one acre of water surface area and can seriously damage aquatic habitat.

Legal Requirements:

NFPA requirements	<input type="checkbox"/> All marine service stations are subject to the National Fire Protection Association's (NFPA) <i>Automotive and Marine Service Station Code</i> (NFPA 30A). These requirements are adopted locally. Check with your municipal fire marshal for local requirements.
<u>Fuel station requirements:</u> Nozzles Attendant Extinguisher Signs Before fueling During fueling After fueling	<input type="checkbox"/> The following requirements are listed in NFPA 30A as pertaining to marine service stations. It is not intended to be a complete list of requirements: <ul style="list-style-type: none"> <input type="checkbox"/> Dispensing nozzles must be of the automatic-closing type without a latch-open device or holding clip [NFPA 30A, Section 10-4.2]. Remove old fuel nozzle triggers that lock in the "on" position. <input type="checkbox"/> All marine service stations must be attended by an employee responsible for supervising, observing, and controlling the dispensing of liquids whenever the station is open for business [NFPA 30A, Section 10-4.7]. <input type="checkbox"/> At least one fire extinguisher with the minimum classification of 40-B:C must be located within 100 feet of each pump, dispenser, and pier-mounted liquid storage tank [NFPA 30A, Section 10-8.1]. <input type="checkbox"/> Signs with the following legends printed in 2-inch (5cm), red block capital letters on a white background must be posted in the dispensing area of all marine service stations [NFPA 30A, Section 10-11.8]: <ul style="list-style-type: none"> ▪ BEFORE FUELING: <ul style="list-style-type: none"> ○ Stop all engines and auxiliaries ○ Shut off all electricity, open flames and heat sources ○ Check all bilges for fuel vapors ○ Extinguish all smoking materials ○ Close access fittings and openings that could allow fuel vapors to enter enclosed spaces of the vessel ▪ DURING FUELING: <ul style="list-style-type: none"> ○ Maintain nozzle contact with fill pipe ○ Wipe up spills immediately ○ Avoid overfilling ○ Fuel filling nozzle must be attended at all times ▪ AFTER FUELING: <ul style="list-style-type: none"> ○ Inspect bilges for leakage and fuel odors ○ Ventilate until odors are removed
SPCC Plan	<input type="checkbox"/> If your facility stores a certain amount of gas or oil, (1,320 gallons or more

	in above ground storage) it may require a Spill Prevention Control and Countermeasure (SPCC) Plan [40 CFR 112].
Report spills	<input type="checkbox"/> Any spill or release of petroleum that results in a sheen on the waters of the state or threatens the waters of the state to include groundwater must be reported immediately to the: <ol style="list-style-type: none"> 1. SCDHEC Emergency Response Section at 1-888-0125 and 2. National Response Center at 1-800-424-8802 [Section 311 of the Clean Water Act; 33 USC 1321].

Best Management Practices

Fuel dock location	<input type="checkbox"/> Locate fuel docks in protected areas to reduce potential for accidents due to passing boat traffic, and design them so that spill containment equipment can be easily deployed to surround a spill and any boats that may be tied to the fuel dock.
Spill materials at fuel dock	<input type="checkbox"/> Store spill containment and control materials in a clearly marked and easily accessible location, attached or adjacent to the fuel dock. <input type="checkbox"/> Keep oil absorbent pads and pillows available at the fuel dock for staff and customers to mop up drips and small spills.
Sell spill materials	<input type="checkbox"/> Carry vent line whistles, vent cups, oil absorbent fuel collars and other fuel spill preventative devices in your ships store.
Personal watercraft	<input type="checkbox"/> Provide a stable platform for fueling personal watercraft, if your facility services significant numbers of them.
Inspect hoses	<input type="checkbox"/> Routinely inspect and repair fuel transfer equipment, ie. hoses and pipes.
Fuel connections	<input type="checkbox"/> Place plastic or nonferrous drip trays lined with oil absorbent materials beneath fuel connections.
Train staff	<input type="checkbox"/> Train fuel dock staff to handle and dispense fuel properly. Fuel dock staff should be trained to: <ol style="list-style-type: none"> 1. Fill tanks slowly and carefully. Prevent overfilling of gas tanks by listening to or keeping a hand at the air vent, if possible; a pronounced flow of air is emitted when the tank is nearly full. 2. Remember that fuel expands in warm weather and to fill tank to no more than 90% capacity to allow for that expansion. 3. Use a fuel collar or fuel bib and keep an absorbent pad or pillow ready to catch spills, drips, or overflow. 4. Put a drip pan under portable fuel tanks. If possible, fill portable fuel tanks ashore. 5. Prevent spills as well as respond to spills. 6. Give information and direction to customers.

Relevant Sections and Appendices:

- ⇒ Appendix B and Hazardous Waste section for hazardous waste management information.
- ⇒ Appendix E for state and federal spill reporting requirements and SPCC Plan information.
- ⇒ Spill section.

Fuel Storage

Potential Environmental Impacts:

Fuel spills are very damaging to the marina environment. According to the EPA, the complex hydrocarbon compounds in oil and gasoline are toxic to marine life, upset fish reproduction, and interfere with growth and reproduction of bottom dwelling organisms.

Legal Requirements:

Facility storing >10,000 lbs fuel	<input type="checkbox"/> If your facility stores 10,000 pounds or more of gasoline, diesel fuel, and/or fuel oil, either above- or underground for dispensing or for on-site use, you must report storage of that substance under the Emergency Planning and Community Right-to-Know Act of 1986 [42 USC 11001, and 42 CFR 355].
Storage tanks NFPA	<input type="checkbox"/> Both above and underground storage tanks and their piping systems are subject to the National Fire Protection Association's (NFPA) <i>Automotive and Marine Service Station Code</i> (NFPA 30A). These requirements are adopted locally. Check with your municipal fire marshal for local requirements.
Underground storage tanks (USTs) Requirements	<input type="checkbox"/> Underground Petroleum Storage: Tanks with ten percent or more of total volume below grade (including the volume of connected underground pipes) are considered Underground Storage Tanks (USTs) and must meet certain requirements [UST Regulation R.61-92.280.12; 40 CFR 280]. The general requirements are that: <ol style="list-style-type: none"> 1. Owners and operators of USTs must provide release detection for tanks and piping. [DHEC R. 61-92.280.41 and 42]. 2. The tank and piping be constructed of non-corrosive materials or externally coated cathodically protected steel and installed according to manufacturer's specifications; 3. The facility has an approved method of leak detection which includes the maintenance of all activity records for 5 years; 4. Fill-pipes on tanks have means to collect spills from delivery hoses; 5. The tanks have overfill protection, such as overfill prevention equipment, that will automatically shut off flow into the tank when the tank is no more than 95% full [Sec. 280.20(C)(ii)(a)], or alert the transfer operator when the tank is no more than 90% full by restricting flow into the tank or triggering a high level alarm (280.20.(C)(ii)(B), or restrict flow 30 minutes prior to overfilling, alert the operator with a high level alarm one minute before overfilling, or automatically shut off flow into the tank so that none of the fittings located on top of the tank are exposed to product due to overfilling (280.20(C)(ii)(c). 6. The tank must be registered with the SCDHEC. 7. If a facility has a total underground buried storage capacity of more than 42,000 gallons of petroleum product, it may require a Spill, Prevention, Control, and Countermeasure (SPCC) Plan [40 CFR 112.1].
Underground tank removal	<input type="checkbox"/> There are additional requirements for facility owners or operators when they are closing USTs through removal or in-place abandonment [DHEC R.61-92.280.71].

Aboveground petroleum storage	<input type="checkbox"/> Aboveground Petroleum Storage: If your facility stores a certain amount of gas or oil in aboveground tanks (a total aggregate volume greater than 1,320 gallons) it may require a Spill Prevention, Control and Countermeasure (SPCC) Plan [40 CFR 112], which outlines a facility-wide plan to prevent spills and contingency plans in case of spills.
SPCC plans	<input type="checkbox"/> SPCC plans require [40 CFR 112]: <ol style="list-style-type: none"> 1. The aboveground storage tank should be located within a dike or over an impervious storage area. 2. The tanks require secondary containment of 110% of the volume of the largest container. 3. A professional engineer must approve written spill prevention and response measures as adequate.
Report spills	<input type="checkbox"/> Any spill or release of petroleum that results in a sheen on the waters of the state or threatens waters of the state to include groundwater must be reported immediately to the: <ol style="list-style-type: none"> 1. SCDHEC Emergency Response Section at 1-888-481-0125 and 2. National Response Center at 1-800-424-8802 [Section 311 of the Clean Water Act; 33 USC 1321].
Make hazardous waste determination	<input type="checkbox"/> A hazardous waste determination must be conducted on any materials used to clean a spill to determine whether or not disposal of the materials is subject to hazardous waste regulations [RCRA; 40 CFR 262.11; DHEC R.61-79.262.11].

Best Management Practices:

Secure areas when not in use	<input type="checkbox"/> Fueling facilities and storage areas must be secured when not in use by appropriate shutdown devices and security locks.
Spill Contingency Plan	<input type="checkbox"/> Even if you are not required to, develop a Spill Contingency Plan for all fuel storage and dispensing areas.
Post phone numbers	<input type="checkbox"/> Post emergency phone numbers in an obvious location.
Inspect for leaks	<input type="checkbox"/> Regularly inspect aboveground fuel storage tanks and associated piping for leaks.
Tank roof	<input type="checkbox"/> If possible, cover the tank with a roof to prevent rainwater from filling the containment area.

Relevant Sections and Appendices:

- ⇒ Appendix A for hazardous substance management information.
- ⇒ Appendix B for hazardous waste management information.
- ⇒ Appendix E for spill plan and reporting information.
- ⇒ Appendix F and Stormwater Runoff Management Practices section for stormwater discharge information.
- ⇒ Hazardous Waste section.

Fuel Tank Disposal

Potential Environmental Impacts:

According to the EPA, the complex hydrocarbon compounds in petroleum products are toxic to marine life, upset fish reproduction, and interfere with growth and reproduction of bottom dwelling organisms. Improperly disposed fuel tanks can also impact groundwater supplies and pose a serious fire safety risk.

Legal Requirements:

Tank disposal	<ul style="list-style-type: none"><input type="checkbox"/> If a portable or fixed tank for gasoline or an oil and gasoline mixture is empty, meaning drained of all material that can be removed from the container by normal methods like pouring or pumping, AND no more than one inch (or 3% by weight) of residue remains in the container, it can be disposed of as regular solid waste or can be recycled as scrap metal [40 CFR 261.7].<input type="checkbox"/> If a tank is not empty, it must be disposed of as hazardous waste [40 CFR 262.11; DHEC R.61-79.262.11].
Contact UST Program	<ul style="list-style-type: none"><input type="checkbox"/> Prior to closing underground storage tanks (UST) through removal or in-place abandonment, you must notify the UST Program and follow applicable regulations [UST, R.61 (92.280.71)(a)].

Best Management Practices:

Leftover fuel	<ul style="list-style-type: none"><input type="checkbox"/> Use, recondition or recycle all usable fuel before disposing of the tank.
Keep away from heat	<ul style="list-style-type: none"><input type="checkbox"/> Store tanks awaiting disposal away from ignition sources like heat or sparks.
Label tanks	<ul style="list-style-type: none"><input type="checkbox"/> Clearly label tanks “Waste Gasoline.”
Fuel canisters	<ul style="list-style-type: none"><input type="checkbox"/> Large fuel canisters should be de-valved with a fire marshal permit or taken to a hazardous waste collection facility.
Disposable canisters	<ul style="list-style-type: none"><input type="checkbox"/> Disposal propane canisters should have their pressure released using an official puncturing device and used as scrap metal. These pressurized canisters could explode dangerously and should not be punctured with any other device. If you do not have the appropriate device, take the canisters to a hazardous waste collection facility.

Relevant Sections and Appendices:

⇒ Appendix B and Hazardous Waste section for hazardous waste management information.

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Oil

Potential Environmental Impacts:

Even small amounts of oil introduced into the marina environment can cause environmental problems, especially if they persist. Although some oil that spills into the water evaporates, petroleum hydrocarbons can remain suspended in the water column, concentrate on the surface, or settle to the bottom. Because of the properties of oil, a cup of oil can spread a very thin sheen over more than an acre of calm water. Oil sheens can block necessary oxygen and light from moving through the surface of the water. According to the EPA, the hydrocarbons in oil harm juvenile fish, upset fish reproduction, and interfere with the growth and reproduction of bottom-dwelling organisms.

Legal Requirements:

Manage oil	<input type="checkbox"/> Manage used oil, and any materials used to clean a spill, in accordance with the requirements specified in Appendix C [40 CFR 279; DHEC R.61-107.279].
Oil storage - SPCC	<input type="checkbox"/> Storage of used oil is subject to all applicable Spill Prevention, Control and Countermeasures [40 CFR 112].
Report spills	<input type="checkbox"/> Any spill or release of petroleum that results in a sheen on the waters of the state or threatens the waters of the state to include groundwater must be reported immediately to the: [DHEC R.61-68.E.4] 1. SCDHEC Emergency Response Section at 1-888-481-0125 and 2. National Response Center at 1-800-424-8802 [Section 311 of the Clean Water Act; 33 USC 1321].
Do not use dispersants/ soap or other dispersants	<input type="checkbox"/> The use of dispersants, such as dishwashing soaps or detergents, on a fuel spill or sheen of any size on the surface water is prohibited in most circumstances. Dispersants may only be used with permission from federal or state authorities, and only in rare instances [40 CFR 110.4, DHEC R.61-68.E.5].

Best Management Practices:

Keep used oil separate from other liquids	<input type="checkbox"/> Do not allow anything else, such as gasoline, solvents, paint, varnishes, pesticides, or antifreeze to be added to the used oil container. The introduction of these materials will result in the whole mixture having to be managed as a hazardous waste, adding a large expense. In general, engine oil, transmission fluid, hydraulic fluid, and gear oil are considered used oil and may be placed in the waste oil container. As a precaution though, <u>check with your recycler before mixing any materials.</u>
Reuse oil	<input type="checkbox"/> Burn your used oil in an approved used oil fuel space heater. This is a cost saving measure that eliminates the cost of waste oil removal.
Recycle oil	<input type="checkbox"/> Have a registered used oil transporter haul the used oil offsite for recycling. Used oil that is recycled is subject to less stringent regulations than hazardous waste.

Recycle oil filters	<input type="checkbox"/> Recycle used oil filters. Puncture and thoroughly drain them first. If you generate large numbers of filters, consider purchasing a filter crusher.
Spill-proof oil changes	<input type="checkbox"/> Purchase a non-spill vacuum-type system for spill-proof oil changes, or to suction oily water from bilges. <input type="checkbox"/> Slip a plastic bag over used oil filters prior to removal to prevent drips.
Use absorbent pads	<input type="checkbox"/> Use oil absorbent materials to clean up small drips and spills. <input type="checkbox"/> Sell oil absorbent pads in the ships store.
Customer oil collection:	<input type="checkbox"/> Install collection facilities for used oil and used oil filters and encourage boaters to use them, or direct boaters to their municipal used oil collection facility, usually at local transfer station.
Consult EQC	<input type="checkbox"/> Collected oil should be recycled or burned in an approved heater; otherwise the marina may be subject to stricter regulations due to the increased generation of hazardous waste. Contact EQC for a consultation visit to ensure there is no change in generator status.
Post signs	<input type="checkbox"/> Post signs indicating how important it is that the used oil not be contaminated.
Separate tanks	<input type="checkbox"/> Consider providing separate tanks for used oil, one for patrons to use and a secure tank for used oil collected by marina facility staff.
Educate: don't use detergents	<input type="checkbox"/> Educate customers and staff to not use soaps and detergents to clean up oily drips and spills on the water.
Bilge water	<input type="checkbox"/> Avoid pumping bilge water that is oily or has a visible sheen. Use oil absorbent materials or an oil/water separator to remove oil before pumping. <input type="checkbox"/> Purchase a portable or stationary oil/water separator to clean bilge water. These devices draw contaminated water from bilges; capture hydrocarbons in a filter and discharge clean water.

Relevant Sections and Appendices:

- ⇒ Appendix C for used oil management.
- ⇒ Appendix E for spill plan and reporting information.
- ⇒ Appendix F and Stormwater Runoff Management Practices section for stormwater discharge information.
- ⇒ Spills section.

Antifreeze

Potential Environmental Impacts:

Antifreeze can pollute groundwater, surface water and drinking water supplies if dumped, spilled or leaked, and is harmful to marine and aquatic life. While in an engine, antifreeze can become contaminated with lead or fuel to the point where it must be managed as a hazardous waste. There are two types of antifreeze. Antifreeze with ethylene glycol, a greenish-yellow, odorless, sweet-tasting chemical, poses a serious health hazard to humans and animals if ingested. Antifreeze with propylene glycol, which is usually pink and marketed as nontoxic, is less toxic and is recommended for use.

Legal Requirements:

Make hazardous waste determination	<ul style="list-style-type: none"><input type="checkbox"/> Waste antifreeze can be either hazardous or non-hazardous, depending upon the levels of contaminants it contains (the most common contaminants are lead, benzene, and zinc). In order to determine which is the case, the generator must either have their waste tested, or utilize reliable “knowledge of process” information for the waste (if available) [RCRA; 40 CFR 262.11; DHEC R.61-79.262.11]. Such information could include testing by haulers or studies by industry trade groups.<input type="checkbox"/> A hazardous waste determination must be conducted on any materials used to clean antifreeze spills [40 CFR 262.11; DHEC R.61-79.262.11].
Manage hazardous waste	<ul style="list-style-type: none"><input type="checkbox"/> Antifreeze that is hazardous waste must either be recycled or disposed of via a permitted hazardous waste hauler. While stored on-site, it must be managed in accordance with hazardous waste storage requirements [40 CFR 262.11; DHEC R.61-79.262.11].
Do not discharge	<ul style="list-style-type: none"><input type="checkbox"/> Antifreeze that is determined to not be a hazardous waste is still considered a polluting liquid waste and may not be discharged into the waters of the state or placed in a location where it is likely to end up in the waters of the state [SC Pollution Control Act, Sec. 48-1-90(a), R.61-79.262.90].

Best Management Practices:

Choose Pink	<ul style="list-style-type: none"><input type="checkbox"/> Use propylene glycol antifreeze (usually pink), which is less toxic than ethylene glycol (usually green), where appropriate. Sell propylene glycol in your ships store.
Transfer Carefully	<ul style="list-style-type: none"><input type="checkbox"/> Use drip pans and funnels when transferring antifreeze to minimize spills and drips.<input type="checkbox"/> Wear eye protection, clothing that covers exposed skin and rubber gloves when transferring antifreeze.<input type="checkbox"/> Pour slowly and carefully to avoid splashing.

Segregate, Cover, and Label	<input type="checkbox"/> Segregate used antifreeze from other wastes. <input type="checkbox"/> Provide well-marked, coverable containers that are in good condition to collect antifreeze. <input type="checkbox"/> Label the containers “Used Antifreeze.” <input type="checkbox"/> Never mix antifreeze with other chemicals.
Contain	<input type="checkbox"/> Recover antifreeze used to winterize systems. <input type="checkbox"/> Store antifreeze in a container that can be completely drained with a wide opening. Keep antifreeze storage containers closed at all times. <input type="checkbox"/> Provide containment to prevent spills from entering ground water or stormwater.
Recycle	<input type="checkbox"/> Recycle used antifreeze. <input type="checkbox"/> Recycling options for antifreeze include: <ol style="list-style-type: none"> 1. Purchase on-site recycling equipment and recycle at your facility. Conduct a RCRA hazardous waste determination (i.e., test the residue or filter cartridge) at least one time to verify that the waste is not hazardous before recycling on-site. Keep a copy of the test results in your files; 2. Contract with a hauler that recycles the antifreeze off-site.

Relevant Sections and Appendices:

- ⇒ Appendix B for hazardous waste management information.
- ⇒ Appendix C for used antifreeze management information.
- ⇒ Appendix F and Stormwater Runoff Management Practices section for stormwater discharge information.
- ⇒ Hazardous waste section.

Rags and Oil Absorbent Pads

Potential Environmental Impacts:

Contaminated rags and oil absorbent pads that are improperly managed may pose fire, health, and environmental risks. Minimizing contamination of rags and pads reduces health risks to workers and emissions of volatile organic compounds to the air, improves effluent discharge from industrial laundries if you use washable rags, decreases liability risks, and saves money by minimizing solvent use.

Legal Requirements:

Types of contaminated rags/pads	<input type="checkbox"/> How used cloth rags/pads are managed depends on what the rags are contaminated with [40 CFR 262.11; DHEC R.61-79.262.11]. <input type="checkbox"/> If the used rag is: <ol style="list-style-type: none"> 1. Dripping with used oil, manage as used oil. 2. Contaminated with used oil, but not dripping, evaluate for hazardous waste then properly manage. 3. Contaminated with paints or solvents, or other hazardous materials, manage as hazardous waste. 4. Contaminated with other material (or only with mild cleaners or soaps), dispose of in regular trash.
Leased rags/ pads	<input type="checkbox"/> If you lease rags/pads and have them laundered, and they are contaminated with hazardous waste, you must manage them as hazardous waste until they are picked up for laundering. However, they do not require a hazardous waste manifest [40 CFR 262.11; DHEC R.61-79.262.11].

Best Management Practices:

Separate rags/pads	<input type="checkbox"/> Keep oily rags/pads separate from rags that have been contaminated with hazardous materials such as solvents.
Wring rags/pads	<input type="checkbox"/> Remove excess solvent from rags/pads by wringing or pressing excess into coverable container.
Reduce solvent use	<input type="checkbox"/> Reduce the amount of solvent used in cleaning through improved work practices. Use solvents only when absolutely necessary. Use non-VOC cleaners.
Recyclable rags	<input type="checkbox"/> Use cloth rags that can be recycled by an industrial laundry service.
Laundry service	<input type="checkbox"/> Contract with a permitted industrial laundry service that will pick up soiled rags and deliver clean rags on a regular basis. The laundry service may require you to limit the solvent and other chemical content of the soiled rags because of the limits on their permit to discharge wastewater into the sanitary sewer.
Rag/pad storage	<input type="checkbox"/> Store ignitable rags/pads in NFPA approved, labeled containers until they can be laundered.
Rags/pads with gasoline	<input type="checkbox"/> Reuse rags or absorbent pads that have soaked up ONLY gasoline.

Rags/pads with oil	<input type="checkbox"/> If rag or absorbent pad has soaked up ONLY diesel or oil: <ol style="list-style-type: none"> 1. If the used oil collector will accept them for energy recovery, place in a covered container in the used oil collection area for pickup. 2. If the rag or pad is dry and the used oil collector will not accept them, check that the landfill will accept them and then double bag and place in trash.
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Relevant Sections and Appendices:

- ⇒ Appendix B for hazardous waste management information.
- ⇒ Appendix C for used oil management information.
- ⇒ Hazardous Waste section.
- ⇒ Oil section.

Degreasing / Parts Washing

Potential Environmental Impacts:

Degreasers used to clean metal parts may be organic solvents (chlorinated or non-chlorinated) or water-based cleaners. Organic solvents usually contain volatile organic compounds (VOCs), which can evaporate quickly. Many VOCs combine with combustion emissions to form ground level ozone, a major component of “smog.” Ozone damages lungs and degrades many materials. When solvents are released and reach water, even in very small quantities, they may render the water unfit for human consumption and uninhabitable for aquatic life. Many organic solvents are also combustible, which may pose a fire hazard.

Legal Requirements:

Make hazardous waste determination	<input type="checkbox"/> A hazardous waste determination must be conducted to establish whether or not disposal of waste solvents and parts washer solutions is subject to hazardous waste regulations [RCRA; 40 CFR 262.11; DHEC R.61-79.262.11]. A hazardous waste determination must also be conducted on any materials used to clean a spill.
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Best Management Practices:

Use non-VOC cleaners	<input type="checkbox"/> Use water-based, non-VOC cleaners that are less hazardous than solvent-based degreasers. They are also less toxic and non-flammable. Don't use a toxic or flammable organic solvent if you don't have to.
Volatile organic compound (VOC) use procedures	<input type="checkbox"/> Any parts washer that uses VOCs at room temperature should follow these equipment design and operating procedures: <ol style="list-style-type: none"> 1. The cover must be easily operated with one hand and closed whenever the parts washer is not being used for 2 minutes or more. 2. Parts must be covered during draining. 3. Waste solvent must be stored in covered containers. 4. Cleaned parts must be drained for at least 15 seconds, or until dripping ceases, whichever is longer. 5. Degreasing solvent must be sprayed as a compact fluid stream (not a fine, atomized, or shower type) and at a pressure that does not exceed 10 psi. 6. Operation must cease at the occurrence of any visible solvent leaks. 7. Post labels on or near each unit summarizing the applicable operating requirements. 8. Keep monthly records on the amount of solvent added to each unit.
Contain solvents	<input type="checkbox"/> If using VOC-based solvents is unavoidable, catch excess solvents in a pan and reuse.
Separate solvents	<input type="checkbox"/> Do not mix or add other types of solvents to any degreaser.
Don't dump solvents	<input type="checkbox"/> Never discard any degreasing solvent into sinks, floor drains or onto the ground. It will find its way to local waters and as little as a thimble full may render thousands of gallons of water uninhabitable for aquatic life or unfit for human consumption. You may be held responsible for remediation.

Relevant Sections and Appendices:

- ⇒ Appendix B and Hazardous Waste section for hazardous waste management information.
- ⇒ Appendix F and Stormwater Runoff Management Practices section for stormwater discharge information.
- ⇒ Antifreeze section.
- ⇒ Battery Replacement section.
- ⇒ Oil section.
- ⇒ Rags and Oil Absorbent Pads section for used rag disposal information.

Battery Replacement

Potential Environmental Impacts:

If handled improperly, lead acid batteries pose certain hazards. Battery components are toxic and corrosive, and can also be a fire and explosion hazard. Lead and sulfuric acid can contaminate the air, soil, and water. Direct contact with sulfuric acid can burn the skin and eyes. Exposure to lead in the environment can pose a serious health hazard to children. Lead is also very toxic to aquatic life and can enter marina basins through stormwater when spent lead acid batteries are not managed properly.

Legal Requirements:

Universal Waste Rule:	<input type="checkbox"/> Marinas that store less than 5,000 kilograms (11,000 pounds) of spent lead-acid batteries would be classified as “Small Quantity Handlers” under the Universal Waste Rule. Such handlers are required to do the following [40 CFR 273 Subpart B; DHEC R.61-79.273]: <ol style="list-style-type: none"> 1. Mark all batteries (or containers holding such batteries) with the words “Universal Waste – Batteries,” “Waste Batteries,” or “Used Batteries.” 2. Store batteries for no more than one year before sending them off-site for recycling. 3. Place any battery that shows signs of leakage, spillage, or damage in a container that is kept closed, is structurally sound, and is compatible with the contents of the battery. 4. Immediately contain any releases of batteries or electrolyte. 5. Before shipping batteries off-site, ensure that they are packaged, marked, labeled, and placarded in accordance with U.S. DOT rules for hazardous materials. 6. Ship the batteries to another Universal Waste handler, or to an authorized destination facility for recycling. Prior to shipment, ensure that the receiving facility agrees to receive the shipment. Any shipments that are rejected must be taken back, or directed to another handler or destination facility. In addition, if you transport batteries from one site to another, you must comply with Universal Waste transporter requirements [40 CFR 273 Subpart D; DHEC R.61-79.273.18]. 7. A marina that accepts lead acid batteries from the public for temporary storage prior to recycling must be registered with DHEC. [DHEC R.61-107.8].
Label	
Store < 1 year	
Keep in container	
Contain spills	
Package appropriately	
Shipment	
Collection	
Make hazardous waste determination	<input type="checkbox"/> A hazardous waste determination must be conducted on spilled acid and broken lead acid batteries, and any materials used to clean a spill, to establish whether or not their disposal is subject to hazardous waste regulations [RCRA; 40 CFR 262.11; DHEC R.61-79.273.18].
If > 500 lbs stored onsite	<input type="checkbox"/> If over 500 pounds of batteries are stored on-site, report the chemicals in lead acid batteries (sulfuric acid and lead) as part of your hazardous and toxic chemical inventory and notifications required under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) [40 CFR 355].

Best Management Practices:

Limit long term storage	<input type="checkbox"/> Avoid long-term storage of lead acid batteries by sending accumulated batteries to a reclaimer within six months of receipt. Limit accumulation of large quantities of spent batteries. If necessary, ship more frequently.
Store properly	<input type="checkbox"/> Store spent lead acid batteries upright in a secure location, protected from the elements. <input type="checkbox"/> Never stack batteries directly on top of each other. Layer with wood. <input type="checkbox"/> Never drain batteries or crack the casings.
Broken batteries	<input type="checkbox"/> Place cracked or leaking batteries in a sturdy, acid-resistant, leak-proof, sealed container (e.g., a sealable 5-gallon plastic pail). The container should be kept closed within the battery storage area.
Transport properly	<input type="checkbox"/> Strap batteries to pallets or wrap batteries and pallet in plastic during transport.
Keep records	<input type="checkbox"/> Keep written records of weekly inspections of spent lead acid batteries.

Relevant Sections and Appendices:

- ⇒ Appendix A for hazardous substance management information.
- ⇒ Appendix B for hazardous waste management information.
- ⇒ Appendix F and Stormwater Runoff Management Practices section for stormwater discharge information.
- ⇒ Hazardous waste section.

Upland Engine Operations

Potential Environmental Impacts:

Working on boat engines has potential environmental impacts. If engine fluids are not well managed, they may be transported by stormwater into the marina basin, where they can harm fish and other aquatic life. If certain fluids are mixed, they may become subject to hazardous waste requirements and be more expensive to dispose. Waste fluids from upland engine operations may include: engine oil, transmission fluid, power steering fluid, brake fluid, hydraulic fluid and antifreeze, all of which are recyclable liquids. Many of these fluids can be hazardous, and may pick up contaminants (e.g., lead from bearings) during use in an engine.

Legal Requirements:

Make hazardous waste determination	<input type="checkbox"/> A hazardous waste determination must be conducted to establish whether or not disposal of waste fluids is subject to hazardous waste regulations [RCRA; 40 CFR 262.11; DHEC R.61-79.262.11]. A hazardous waste determination must also be conducted on any materials used to clean a spill.
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Best Management Practices:

Don't discharge fluids	<input type="checkbox"/> Never pour waste fluids down any drains, including stormwater drains, or onto the ground. Exception: waste fluids may be discharged into sealed and permitted blind sumps that capture contaminants for proper treatment and disposal. <input type="checkbox"/> Do not dispose of liquid waste in dumpsters.
Separate and recycle fluids	<input type="checkbox"/> Recycle fluids whenever possible. In general, the purer the waste stream, the higher the value to the recycler. Never mix gasoline, antifreeze, or chlorinated solvents into used oil because it may cause the used oil to become a hazardous waste, therefore requiring higher disposal costs.

Relevant Sections and Appendices:

- ⇒ Appendix B and Hazardous Waste section for hazardous waste management information.
- ⇒ Appendix F and Stormwater Runoff Management Practices section for stormwater discharge information.
- ⇒ Appendix C for used oil and antifreeze management.
- ⇒ Antifreeze section.
- ⇒ Oil section.
- ⇒ Rags and Oil Absorbent Pads section.

Commissioning Engines

Potential Environmental Impacts:

The waste fluids generated when commissioning engines on the upland, if not properly managed, can potentially enter the water in stormwater runoff. Contact with the fluids can harm fish and other marine and aquatic life. If certain fluids are mixed, they may become subject to hazardous waste requirements and be more expensive to dispose. Waste fluids from commissioning engines may include engine oil, gasoline, diesel fuel, and antifreeze.

Legal Requirements:

Gasoline disposal	<input type="checkbox"/> If stale gasoline cannot be reconditioned, dispose of it as hazardous waste [40 CFR 262.11; DHEC R.61-79.262.11].
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Best Management Practices:

Check for leaks	<input type="checkbox"/> Inspect fuel lines for leaks or potential leaks such as cracks and loose connections. These can be persistent sources of engine fluids to the bilge.
Encourage boaters	<input type="checkbox"/> Household hazardous waste programs may accept unwanted gasoline and gas/oil blends generated by individual boat owners. Encourage marina patrons to dispose of their waste gasoline through their own municipal household hazardous waste collection programs, if appropriate.

Relevant Sections and Appendices:

- ⇒ Appendix B and Hazardous Waste section for hazardous waste minimization tips.
- ⇒ Appendix F and Stormwater Runoff Management Practices section for stormwater discharge information.
- ⇒ Antifreeze section.
- ⇒ Oil section.
- ⇒ Rags and Oil Absorbent Pads section.

Decommissioning Engines

Potential Environmental Impacts:

The waste fluids generated when decommissioning engines on the upland, if not properly managed, can potentially enter the water in stormwater runoff. Contact with the fluids can harm fish and other marine and aquatic life. If certain fluids are mixed, they may become subject to hazardous waste requirements and be more expensive to dispose. Waste fluids from decommissioning engines may include engine oil, gasoline, diesel fuel and antifreeze.

Legal Requirements:

Gasoline disposal	<input type="checkbox"/> If stale gasoline cannot be reconditioned, dispose of it as hazardous waste [40 CFR 262.11; DHEC R.61-79.262.11].
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Best Management Practices:

Use pink antifreeze	<input type="checkbox"/> Use propylene glycol antifreeze (usually pink) to winterize all systems except “closed,” or freshwater cooling systems. Propylene glycol antifreeze is much less toxic than ethylene glycol antifreeze. Use the minimum amount of antifreeze necessary for the job.
Use stabilizers	<input type="checkbox"/> Where appropriate, add stabilizers to fuel to protect engines against corrosion and the formation of sludge, gum, and varnish. Stabilizers are available for gasoline and diesel fuels, and for crankcase oil. This also eliminates the problem of stale fuel disposal in the spring. Check manufacturer’s warranty on engine before adding fuel stabilizers.
Fill fuel tank only 90%	<input type="checkbox"/> Fill fuel tanks to 85-90% full to prevent flammable fumes from accumulating and to minimize the possibility of condensation leading to corrosion. Do not fill the tank more than 90% full if the boat has an external overflow vent. The fuel will expand as it warms in the springtime, and fuel will spill out the vent line of a full inboard tank.
Unwanted gas	<input type="checkbox"/> Household hazardous waste programs may accept unwanted gasoline and gas/oil blends generated by individual boat owners. Encourage marina patrons to dispose of their waste gasoline through their own municipal household hazardous waste collection programs, if appropriate.

Relevant Sections and Appendices:

- ⇒ Appendix B and Hazardous Waste section for hazardous waste minimization tips.
- ⇒ Appendix F and Stormwater Runoff Management Practices section for stormwater discharge information.
- ⇒ Antifreeze section.
- ⇒ Battery Replacement section.
- ⇒ Oil section.
- ⇒ Rags and Oil Absorbent Pads section.

Zinc Replacement

Potential Environmental Impacts:

Sacrificial zinc anodes fight corrosion in salt water by deterring corrosion of metal hull and engine parts. Elevated levels of zinc in marina sediments have been found to be associated with boat operation and maintenance. Zinc, in high concentrations, can be toxic to marine life, and can be potentially toxic to humans who eat contaminated shellfish or fish.

Legal Requirements:

Make hazardous waste determination	<input type="checkbox"/> A hazardous waste determination must be performed on waste zinc anodes being disposed of [RCRA; 40 CFR 262.11; DHEC R.61-79.262.11]. However, if the anodes can be recycled as scrap metal, they do not have to be managed as hazardous waste.
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Best Management Practices:

Recycle	<input type="checkbox"/> Recycle zinc anodes with other scrap metals. Scrap metal dealers will take spent zinc anodes.
Storage	<input type="checkbox"/> Store zinc anodes with other recyclable scrap metals in clearly marked containers protected from the elements.

Relevant Sections and Appendices:

- ⇒ Appendix B and Hazardous Waste section for hazardous waste management information.
- ⇒ Appendix F and Stormwater Runoff Management Practices section for stormwater discharge information.

Refrigerants

Potential Environmental Impacts:

Refrigerants become an environmental problem when they escape into the air. Chlorofluorocarbons (CFCs, or Freon[™]) are gases used primarily as refrigerants in motor vehicle air conditioners, building air conditioning units, refrigerators, and freezers. When CFCs are released into the air, they rise into the upper atmosphere where they damage the protective ozone layer in the stratosphere. A single CFC molecule can destroy 100,000 molecules of ozone. The ozone layer absorbs the sun's harmful ultraviolet (UV) radiation and when it is damaged living things on the earth become exposed to harmful UV.

Legal Requirements:

Air conditioner service	<ul style="list-style-type: none">❑ Everyone who services air conditioners must be certified in the proper use of CFC recovery and recycling equipment [Clean Air Act, Title VI, Section 608 and 609, 40 CFR 82.34].❑ The Clean Air Act prohibits release of CFCs and halons. Anyone repairing or servicing motor vehicle air conditioners must recover or recycle CFCs on-site or recover CFCs and send them off-site for recycling [40 CFR 82.34].
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Best Management Practices:

Refrigerant alternatives	❑ Investigate alternatives to ozone-depleting refrigerants. These include HFC-134 (or R-134a), R-409a and R-404a.
Repair leaks	❑ The EPA does not require that leaks be repaired, although it recommends that vehicle owners consider repairing leaks to reduce emissions and extend the useful life of their air conditioner. Repair of leaking systems will help vehicle owners avoid the need to continue to refill systems with high priced refrigerant.
CFC handling	❑ For more information on CFC handling, contact the EPA at (800) 821--1237, or the National CFC Hotline at (800) 296-1996, between 7:00 a.m. to 1:00 p.m. Monday through Friday.

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Scraping and Sanding

Potential Environmental Impacts:

Hull paints often contain heavy metals and other toxins. Sanding chips and dust that fall onto the ground can enter a marina basin through stormwater runoff. Paint chips and sanding debris can be particularly dangerous when shellfish ingest them and other animals, including humans, then ingest the shellfish.

Legal Requirements:

Make hazardous waste determination	<input type="checkbox"/> You must determine if your sanding dust is hazardous and manage accordingly [RCRA; 40 CFR 262.11; DHEC R.61-79.262.11]. <input type="checkbox"/> If the sanding dust is not hazardous, it must be handled as a Special Waste. This waste may be disposed of at a solid waste landfill if the site meets the design criteria for municipal solid waste landfills. [DHEC R. 61-107.258].
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Best Management Practices:

Designate indoor or upland area	<input type="checkbox"/> Conduct sanding and scraping away from the water's edge. Designate an indoor or upland area for debris-producing maintenance such as scraping, sanding, and sandblasting. The boat maintenance area can be a temporary structure or plastic sheeting provided to minimize the spreading of dust and windblown material. The work area should be well marked with signs.
Use tarps	<input type="checkbox"/> Place drop cloths or tarps under vessels when sanding or scraping. <input type="checkbox"/> Weight the bottom edges of tarps and drop clothes to keep them in place.
Impervious pad	<input type="checkbox"/> Consider installing an impervious pad for conducting debris-producing maintenance.
Clean up immediately	<input type="checkbox"/> Clean up all debris, trash, sanding dust, and paint chips immediately following any maintenance or repair activity. <input type="checkbox"/> When sanding or grinding hulls over a paved surface, vacuuming or sweeping loose paint particles is the preferred cleanup method. Do not hose the debris away. <input type="checkbox"/> Dispose of water-based (non-hazardous) waste paint chips and sanding waste in a covered dumpster or other covered solid waste receptacle.
Non-windy days	<input type="checkbox"/> Avoid scraping or sanding on windy days, unless conducting activity in an enclosed maintenance structure.
Use vacuum sanders	<input type="checkbox"/> Use dustless or vacuum sanders when sanding. These tools can collect over 98% of dust generated instead of releasing it into the air. Workers can use this equipment without full suits or respirators and have fewer cleanups when the job is done. <input type="checkbox"/> Require customers and contractors to use dustless or vacuum sanders. Rent or loan the equipment to them. <input type="checkbox"/> Post signs indicating the availability of the dustless or vacuum sanders.
Provide covered container	<input type="checkbox"/> Provide a covered collection drum for the dust from vacuum sanders and other scraping debris.